ABSTRAK

Mujib Ubaidillah. Pengembangan *Subject-Specific Pedagogy* (SSP) Fisika Berbasis *Problem Solving* untuk Meningkatkan Keterampilan Proses Sains dan Kemampuan Pemecahan Masalah Materi Listrik Dinamis Siswa Kelas X SMA. **Tesis. Yogyakarta: Program Pascasarjana, Universitas Negeri Yogyakarta, 2013.**

Penelitian bertujuan untuk mengetahui: 1) kelayakan SSP (*Subject-Specific Pedagogy)* fisika berbasis *problem solving*, 2) peningkatan keterampilan proses sains dan kemampuan pemecahan masalah materi listrik dinamis menggunakan SSP fisika berbasis *problem solving* pada siswa kelas X SMA N 7 Yogyakarta.

Penelitian ini termasuk *research and development* menggunakan model pengembangan 4-D yang meliputi: 1) pendefinisian, 2) perancangan, 3) pengembangan, dan 4) penyebaran. Produk SSP hasil pengembangan kemudian diujicobakan dalam uji coba terbatas dan luas. Subjek penelitian dalam uji coba terbatas berjumlah 15 siswa, sedangkan dalam uji coba luas berjumlah 30 siswa untuk kelas kontrol dan 29 siswa untuk kelas eksperimen. Hasil pengembangan SSP dinilai dengan sistem skor 5 kategori. Analisis statistik menggunakan analisis multivariat.

Hasilpenelitianadalahsebagaiberikut. 1) Hasilpengembangan SSP yang meliputisilabus, RPP, dan LKS berkategorisangatbaik, instrumentes KPS, instrumentespemecahan masalahdanbuku ajar berkategoribaik. 2) PenerapanSSPfisikaberbasis*problem solving*berpengaruhsignifikanterhadappeningkatanketerampilan proses sainsdan kemampuan pemecahan masalah.Hasiluji*multivariat*membuktikanterdapatperbedaanpengaruhantarasiswa yang mengikutipembelajaran SSP berbasis*problem solving*dengansiswa yang mengikutipembelajaran SSP konvensional.

Kata kunci : SSP, keterampilan proses sains, kemampuan pemecahan masalah

ABSTRACT

Mujib Ubaidillah. *Developing Physics Subject-Specific Pedagogy (SSP) Based on the Problem Solving to Improve the Science Process Skills and Problem Solving Ability in Electricity Subject of Grade X Students of Senior High School.***Thesis. Yogyakarta: Graduate School, Yogyakarta State University 2013.**

The research aims to find out: 1) the expedience of physics Subject-Specific Pedagogy (SSP) based on the problem solving, 2) improve the science process skills and problem solving abilityof grade X students of senior high school 7 Yogyakarta in electricity subject using the physics SSP based on the problem solving.

This research is a research and development using the 4-D development model consisting of: 1) define, 2) design, 3) development, and 4) dissemination. The developed SSP was tested in a limited and extensive field trial. The sample of the limited field trial was 15 students, while in the extensive field trial it was 30 students in the control class and 29 students in the experimental class. The result of the developed SSP was assessed using the system with five score category. The statistic analysis used the multivariate analysis.

The results is as follows. 1) The developed SSP, in terms of the syllabus, RPP and worksheet, is in the excellent category, the science process skills instrument test, problem solving instrument test, and the textbook are in a good category, 2) The implementation of SSP for physics learning based on a problem solving significant effect on increasing of students science process skills and problem solving ability. The result of multivariate testing shows a significantly different effect between students learning using the physics SSP based on the problem solving and students learning using the physics SSP based on the conventional.

Key word : *SSP, science process skills, problem solving ability*